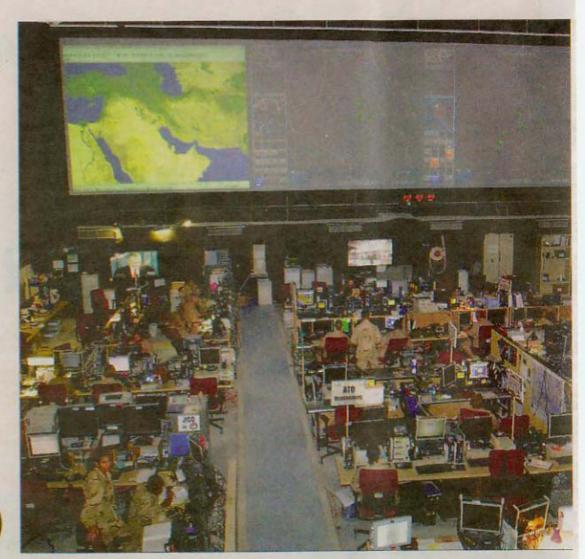
Behind what looks like warehouse walls, the military experts at the Combined Air Operations Center guide U.S. and coalition aircraft from East Africa to Pakistan

Bringing OF CHAOS Chaos



By Gordon Trowbridge

nondescript buildings once served as medical equipment warehouses. If not for the guard shacks, concrete barriers and locked doors, they would draw no notice at all.

The otherworldliness is on the inside — through secured doors and down bare hallways to a theater-size room.

One high wall is plastered with plasma-screen televisions. From rows of desks below, marked with signs bearing a dozen unintelligible acronyms, men and women in desert camouflage scurry about or watch the wall screens and smaller displays at their seats — live video from a Predator unmanned aircraft here; weather updates there; and in the center, two enormous displays plotting the location of every military aircraft in the skies over Iraq and Afghanistan.

A lieutenant colonel emerges from the darkened floor, greets his visitors and jokes, "It's just like that movie, 'War Games,' right?

"We keep the WOPR over here," says Lt. Col. Sean McCarthy, recalling the 1983 film's fictional supercomputer that, assisted by a young hacker, tried to start World War III.



AIR FORCE

Master Sgt. Tim Johnson, right, and Maj. Craig Donnely handle a request for fuel from an aircraft in Southwest Asia last year at the Combined Air Operations Center at Al Udeid Air Base, Qatar. The CAOC is playing a central role in determining how air power can defeat a guerrilla insurgency.

The Combined Air Operations Center here sometimes strikes even its inhabitants as just one step removed from science fiction. For a little more than a year, these bland buildings have been the pulsing brain of one of the largest aerial warfare efforts in history, managing U.S. and coalition fighter, bomber, aerial refueling and airlift assets across an

area stretching 5,600 miles, from East Africa to Pakistan.

It's part administrative headquarters for the command staffs of U.S. Central Command's air component and the Air Force's units in the region; part traffic cop, managing airspace and scheduling for thousands of flights a day; and part think tank, housing the theorists who plot long-term air strategy for Iraq, Afghanistan and the Horn of Africa.

In late November, Air Force Times was granted access to the CAOC and its staff, the first time journalists have

been allowed into

Lt. Gen Walter Buchanan, who commands coalition air forces in the Middle East, and dozens of staffers in the sprawling complex described the CAOC's evolution from an ad hoc col-

lection of experts to a system accorded the same budgetary and doctrinal status as a fighter or bomber fleet. And they described, in more detail than previously has been available, its central role in figuring out how — for perhaps the first time in history — aircraft can play a major part in defeating a guerrilla insurgency.

Managing the aerial ballet

The CAOC's nerve center is its current operations division, which manages the minute-by-minute ballet of aircraft over Iraq and Afghanistan. The division's centerpiece is the operations floor, a cross between "Dr. Strangelove"

and "Apollo 13."

'After working here.

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MAJ. PAT SPIERING

C-5 PILOT AND C-130

AIRLIFT PLANNER

Its video wall might display anything from real-time surveillance video of a suspected insurgent safe house to a 3-foot-high head of

Larry King on CNN.
The level of activity
varies from placid to
borderline chaos, depending on the situations in Afghanistan
and Iraq.

"It can be as busy or as boring as the situation requires," said McCarthy, the deputy director of current operations.

Sprinkled around the floor are experts in dozens of subject areas — aviators of every description, from fighter jocks to Predator UAV experts; communications and computer specialists; representatives of nations assisting in Iraq or Afghanistan; commandand-control specialists; meteorologists; even a lawyer.

The plan executed — and often amended — by combat operations is the product of input from the center's other four divisions: strategy; combat plans, which produces the daily air tasking order, the bible of the day-to-day air campaign; air mobility, which manages movement of cargo and

- Strategy Division: An in-house think tank of sorts, comes up with long-range goals that guide daily planning; and assesses how well those plans achieve their goals.
- Battlefield Coordination Element: An Army detachment that is the Central Command ground commanders' direct line to the CAOC, processing requests for air support and ranking them in importance to quide CAOC decision-makers.

■ NALE, MARLO: The Navy Amphibious Liaison Element and Marine Liaison help advise air commanders on use of Navy and Marine air assets, and in the case of the Marines, work to make sure air strategy and daily planning adequately support Marine ground units.

- Gordon Trowbridge

'We're rewriting the rule book on counterinsurgency warfare'

By Gordon Trowbridge

AL UDED AIR BASE, Qatar — To a handful of strategists in the Combined Air Operations Center here, the mere sound of a jet engine has become a

powerful weapon.

"A lot of times we're not even shooting," said Lt. Col. Rick Gindhart, the center's chief strategist for Afghanistan. "Sometimes all it takes is for the bad guys to hear the sound of a jet overhead. And the good guys in Afghanistan like to hear those sounds — not too close, but close enough to hear."

It's one of the small lessons the center's strategy division has learned as it develops the path ahead for an air campaign unlike anything the Air Force has faced — one focused exclusively on supporting ground troops, fighting a counterinsurgency in which, according to conventional wisdom, air power is nearly powerless.

In Iraq and Afghanistan, the Air Force has few "centers of gravity" to attack, no conventional enemy forces to dismantle, no opposing government or economy with key nodes to target. None of the concepts that guided operations from Desert Storm to Kosovo to the beginnings of Operation Iraqi Free-

dom apply.

"We sort of created this niche that the Air Force was comfortable in," said Maj. Gianni, a strategist who asked to be identified by his call sign because of his special operations background. "But this is not that kind of air campaign. All of a sudden we're having to redefine what our role is, deciding how we inject ourselves into ground-centric operations."

The ground troops' senior representative at the air operations center, the head of its battlefield coordination detachment, said airmen have made that adjustment.

"You might come in kind of leery as a ground guy," said Army Col. James Waring. "But every general who has come through here, the message has been, 'Don't forget why we're here: to support the ground troops.'"

Asked about the controversy over Operation Anaconda, the 2001 mission in Afghanistan's mountains that produced a sometimes angry back-and-forth between Army and Air Force leaders over the level of close-air support, Waring called Anaconda "a useful case study, and we've learned a lot from it. But we're light years past that now."

A warfare first?

While history says aircraft are too blunt a tool to help root out rebels cloaked by a non-combatant population, theorists here say they're demolishing that notion.

"We're rewriting the rule book on counterinsurgency warfare," said British Royal Air Force Air Commodore Philip Goodman, the center's director.

The wide availability of precision weapons, and new classes of weapons with reduced blast range, give air operations a discretion that allows them a large role in counterinsurgency for perhaps the first time in warfare's history.

"We're learning that the big bang is no longer appropriate," Goodman said.

Sometimes it's no bang at all.

"Most people concentrate on the firepower," Gianni said. "But as we move along, you're going to see a lot less firepower and a lot more nonkinetic ops" — that is, less explosions, more civil affairs and reconstruction.

No matter how precise the weapons, even the forces on the ground face limits.

"There are a lot of lessons to be learned from history," Gianni said. "At some point, counterinsurgencies are not won or lost by external help. The Iraqis are going to have to do this for themselves."



TECH, SGT. DEMETRIUS LESTER, AIR FORCE

A Combined Air Operations Center at a forward-deployed location is a nerve center for aerial missions. An Air Force Times reporter and photographer were permitted to visit such a center but were not allowed to take photos. When visitors without security clearance enter the intelligence, surveillance and reconnaissance facility, classified material disappears from the video screen.

passengers as well as aerial refueling, and intelligence, surveillance and reconnaissance, which owns an operations floor that mirrors that of the combat operations division.

When a visitor without a security clearance enters the ISR facility, red lights begin to flash and the ops floor's video screens are scrubbed of secret material.

Given the need to move thousands of passengers, tons of cargo and small oceans of fuel around the theater every day, it's not surprising that the mobility division is often the busiest. Its chief, Lt. Col. Todd Schiff, calls his operations floor "Wall Street" for its resemblance to a New York trading floor.

"After working here, we have a much better sense of the big picture," said Maj. Pat Spiering, a C-5 pilot deployed here as a C-130 airlift planner. "I'm going to be a

AN OVERVIEW

A look at the five major divisions and some other key components of the Combined Air Operations C

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MAJ, ROBIN KIMMELMAN

A STAFF JUDGE ADVOCATE

WHO HAS BEEN AN

INSTRUCTOR IN THE

CAOC COURSE

- Current Operations Division: Handles dayto-day management of the air campaign, making adjustments to the day's plans based on events or new information.
- Combat Plans Division: Takes support requests from ground commanders and turns them into the Air Tasking Order the electronic document that outlines daily operations down to the individual aircraft and the weapons. If carries,
- Intelligence, Surveillance and Reconnaissance Division: Manages use of some of the most in-demand assets in the theater, from Predator UAVs to high-flying U-2 spy planes to orbiting satellites.
- Air Mobility Division: Oversees hundreds of daily missions by airlift and serial refueling aircraft, moving troops, cargo and fuel around the theater.

lot less likely now as a crew dog back in the C-5 to get on the phone yelling about how those guys [at the CAOC] don't know what they're doing."

A new form of weaponry

The CAOC's basic structure is the centerpiece of the Air Force's unusual attempt to treat its air operations centers in much the same way it would a fighter jet or a missile.

"CAOC as a weapons system," in Chief of Staff Gen. John Jumper's phrase, is an idea designed to

bring order to the occasionally chaotic endeavor of planning and executing largescale air operations.

"At one time not too long ago, to do a campaign like this, we'd stand up an AOC out of hide, throwing a bunch of people together, some of whom couldn't even spell 'CAOC,' said Col. Rick Wilcox, the center's director of operations.

The concept now is to make the centers, in the Central Command area as well as in the military's other regional commands, almost "plug-and-play" operations, with a standard frame-

work that can add or remove components as needed.

Just as the Air Force might replace old avionics in an F-15 with upgraded equipment, Wilcox said, it should be able to adjust and upgrade the parts of the operations center.

Seamless transition

And while the various centers won't be identical, ideally a staffer from U.S. Pacific Command's CAOC, for example, should be able to step into U.S. Southern Command's center and not feel out of place.

The concept also means that when changes are made to the organization or the equipment it uses, there are checks to make sure new components — be they billets for human beings or boxes for new communications gear or computer software — will work with the existing systems in the center. Eventually, the air operations center will even be treated like a weapons system at budget time, with program officers advocating for funds.

Perhaps most important, the new concept means new training. Gradually, the Air Force is running those deployed to the centers through a six-week course designed to let them take

> their functional expertise and plug it into the centers' structure.

"It's not enough for me just to be a good JAG here," said Mai. Robin Kimmelman, a staff judge advocate at the center who has served as an instructor in the CAOC course. "If I don't understand the rest of the processes that go on here, I'm just a speed bump getting in the way of things getting done.'

One of the most important changes in the operations center has nothing to do with the weapons system

concept. It's the Air Force's shift to standard 120-day deployments from the old 90-day rotation — a move that has found support here, especially among the small part of the staff assigned on one-year tours.

"In all honesty, it takes a month just to figure out who you need to talk to," McCarthy said,

An extra month of deployment is one more month staffers can be focused on the job rather than getting up to speed or getting ready to head home, he said.

"The most stressful time for the division chiefs is that rotation period," Schiff said. "That transition has to be absolutely transparent to the war fighter. We can't lose any capability because we're swapping out people."